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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/728,395	12/01/2000	Paul Mills	11033-063001/ A9942US-DJL	3395
26161	7590	01/29/2004	EXAMINER	
FISH & RICHARDSON PC 225 FRANKLIN ST BOSTON, MA 02110			PARADISO, JOHN ROGER	
			ART UNIT	PAPER NUMBER
			3721	

DATE MAILED: 01/29/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/728,395

Applicant(s)

MILLS, PAUL

Examiner

John R. Paradiso

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

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DETAILED ACTION

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claim Rejections - 35 USC § 102

2. Claims 1, 2, and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by KOMIYA ET AL (US 6155025).

KOMIYA ET AL discloses a packaging system in which articles (12) are packaged into boxes (30) and printers print indicia (40) on the sides of the boxes to indicate the type and quantity of the articles packaged within in a first section of the system. The boxes are conveyed to a second section where they are then grouped (310) and then conveyed to a third section where the groups are packaged into pallet loads (320). A controller (66) sends signals to each of the elements of the system. (See KOMIYA ET AL columns 4-6 and 9-12 and figures 1, 2, and 19.)

Note that KOMIYA ET AL does not specifically refer to the data bus that transmits signals and translations of commands from the controller to the peripheral units, however, these limitations are inherent in the invention of KOMIYA ET AL: The connecting of a elements of a machine with a controller, such as connecting a printer or floppy drive to a computers CPU or connecting remote sensors and machine control circuits to a PLC, is inherent in structure and is necessary when any components are connected via a data bus to a controller. The same principle

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applies to a means for translating data bus commands: if this were not so, the above examples of a computer would not be able to communicate with or recognize the printer of floppy drive and the example of a machine with remote sensors and control circuits would not be able to communicate or receive instructions from the PLC.

Claim Rejections - 35 USC § 103

3. Claims 3-5 and 7-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over KOMIYA ET AL (US 6155025).

KOMIYA ET AL discloses a packaging system in which articles (12) are packaged into boxes (30) and printers print indicia (40) on the sides of the boxes to indicate the type and quantity of the articles packaged within in a first section of the system. The boxes are conveyed to a second section where they are then grouped (310) and then conveyed to a third section where the groups are packaged into pallet loads (320). A controller (66) sends signals to each of the elements of the system via a data bus.

KOMIYA ET AL does not specifically disclose marking the weight or size of the articles packed within a box, labels for the pallet, a virtual data bus, or the specifics of the control means' signals.

However, Applicant is given Official Notice that the marking of weight and size of articles on the packaging of packed articles is notoriously well known in the art (for instance, the weight of packaged foods, the dimensions of packaged furniture, etc.) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to label the boxes of

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KOMIYA ET AL in order to provide the consumer with the most information possible about the packaged article, enabling the consumer to understand the contents without the need of unpacking them.

Regarding claim 3, it would have been obvious to one having ordinary skill in the art at the time the invention was made to use thermal transfer printers or laser printers or label printers in place of the inkjet printers in the invention of KOMIYA ET AL since the examiner takes Official Notice of the equivalence of each of the aforementioned types of printers for their use in printing indicia in the packaging art and the selection of any of these known equivalents would be within the level of ordinary skill in the art.

Regarding claim 10, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use any of the recited data transfer protocols since Applicant has not disclosed that the use of any of the particular data transfer protocols solves any stated problem or is for any particular purpose and it appears that the invention would perform equally well with any data transfer protocol that allows most efficient and effective communication between the controller and the elements of the system.

Regarding claim 11, Applicant is given Official Notice that the use of virtual transmissions (radio, infrared, etc.) to transmit data is well known in the art (and in everyday life, for instance, TV remote controls, etc.) and it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a virtual data bus to control the elements of KOMIYA ET AL in order to reduce the need for physical cabling and increase the adaptability of the physical system.

Response to Arguments

4. Applicant's arguments filed 11/5/2003 have been fully considered but they are not persuasive.

5. Applicant states on page 2 of his Response that "The passages of Komiya ... referenced in the office action merely describe how a controller controls various mechanisms and patterns and how computer 66 controls various process controllers. .. Komiya nowhere discloses or suggests a 'respective connecting means' for each of a first, second and third marking means and for a means to collect where each respective connecting means includes a 'means to translate data bus commands appropriate to that component into a command protocol which is read by the connected component which responds by performing a productive function, whereby the control means is able to control each of the connected components independent of command protocols is recognized by the connected components.'"

However, as explained above, these limitations are inherent in the invention of KOMIYA ET AL: The connecting of a elements of a machine with a controller, such as connecting a printer or floppy drive to a computers CPU or connecting remote sensors and machine control circuits to a PLC, is inherent in structure and is necessary when any components are connected via a data bus to a controller. The same principle applies to a means for translating data bus commands: if this were not so, the above examples of a computer would not be able to communicate with or recognize the printer or floppy drive and the example of a machine with

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remote sensors and control circuits would not be able to communicate or receive instructions from the PLC.

6. Applicant states on page 4 of his Response that “In the present invention, because each item of equipment includes a ‘respective connecting means’ each of which includes ‘means to translate’ database commands appropriate to that component into a command protocol which is read by the connected component, the computer controller would only ever have to instruct the item of equipment to operate (e.g. ‘print’) and this command would be translated by the connecting means to a command appropriate to the particular item of equipment, i.e., no re-programming of the computer controller is required merely because a replacement printer, or other item of equipment, has been inserted into the packaging system. [¶] Thus, contrary to the statement in the office action that a ‘respective connecting means’ each of which includes a ‘means to translate’ would be present in Komiya, from what is described in Komiya, one would assume that new drivers would need to be installed in the computer controller for each new component.”

However, the claims make no reference to the necessity of changing protocols when equipment is replaced and the argument is rendered moot. The recitation of claim 1 also does not require a single protocol that controls the entire device, but simply that one that can be translated so that all the parts of the machine work in coordination. Even if, *arguendo*, the claims were restrictive to a single protocol, such features are well known in the art of computer-controlled manufacture.

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7. Applicant states on page 5 of his Response that “the Komiya specification is silent as to protocols and one has to assume the Komiya either relies on equipment being replaced by equipment which operates according to the same protocol as the replaced equipment, or relies on reprogramming of the computer controller. It is not possible from reading Komiya to reach any other conclusion. [¶] In any event, arguendo ..., if we were to assume that from what is said, or not said, in Komiya, that it might be possible to include a ‘respective connecting means’ each of which includes ‘means to translate’, this would not be necessary, and therefore, it is improper to rely on ‘inherency’ to make up the missing features in prior art.”

However, the claims make no reference to re-programming (or not) any controller or maintaining the same protocols after equipment changes (if any). The argument is therefore moot.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

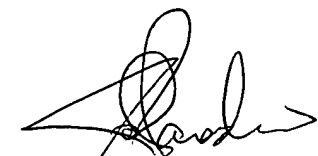
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however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Paradiso. The examiner can normally be reached Monday-Friday, 9:30 p.m. – 6:00 p.m. (ET).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rinaldi Rada, can be reached at the number listed below.

Any inquiry of a general nature or relating to the status of this application should be directed to the 3700 Technology Center Receptionist.



Examiner John Paradiso: (703) 308-2825

Additional Phone Numbers:

Supervisor Rinaldi Rada: (703) 308-2187
TC 3700 Receptionist: (703) 308-1148
Customer Service: (703) 306-5648
Fax (directly to Examiner) (703) 746-3253
Fax (Official): (703) 872-9306



Rinaldi I. Rada
Supervisory Patent Examiner
Group 3700
January 21, 2004